Oregon
Kate Brown, Governor

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Dennis McLerran
EPA Region 10
1200 6th Ave.
Seattle, WA 98101

Re: EPA's Consultation with NOAA Fisheries on EPA's Approval of Oregon's 2003 Temperature Standard

Dear Mr. McLerran, Dennis

First I would like to thank the Environmental Protection Agency and NOAA Fisheries for including the Department of Environmental Quality in discussions regarding NOAA's draft Biological Opinion and the associated reasonable and prudent alternatives and measures to address expected and potential adverse effects of the temperature standard on threatened and endangered species in Oregon. I believe that as a result of this effort, the Reasonable and Prudent Alternatives as drafted will facilitate actions by DEQ and others that will lead to improved temperature conditions for listed salmon and steelhead.

DEQ is committed to continuing and furthering our efforts to improve thermal conditions in Oregon waters. Protecting known existing cold water refuges is important for the survival and recovery of Oregon's endangered salmon and steelhead populations. Therefore, DEQ will dedicate state resources to leading the development of a Cold Water Refugia (CWR) plan for the migration corridor reach of the Willamette River as outlined in the Attachment. This plan will provide information regarding what is needed to meet the CWR narrative criterion and will subsequently inform future implementation. DEQ understands that the Attachment will be included as a Reasonable and Prudent Alternative (RPA) in NOAA's final Biological Opinion. Also, DEQ will use its Clean Water Act authorities to contribute to efforts to protect and enhance cold water refuges in the migration corridor reaches of the Willamette and Columbia Rivers.

DEQ has expended significant resources over the last 20 years to reduce thermal impacts to Oregon waters, including revising the temperature standard, implementing the temperature standard in NPDES permits and 401 certifications, and developing and implementing temperature Total Maximum Daily Loads (TMDLs). Specifically relevant to this action are the temperature TMDLs for the Willamette, Clackamas, Tualatin, Sandy, Hood, John Day and Umatilla Rivers – all major tributaries to the Columbia or lower Willamette River -- that DEQ has completed over the last 10 years. Implementation of these TMDLs is ongoing and DEQ expects to see continued improvements in these waters over time.

DEQ expects the development and implementation of temperature TMDLs to be the primary and most effective means by which DEQ can use its Clean Water Act authorities and capabilities to protect and enhance tributary-related cold water refuges in the Columbia and lower Willamette Rivers. TMDLs evaluate both point and nonpoint source contributions to stream warming and identify the heat load reductions needed by permitted sources, land management practices and, in some cases, by dam management in order to attain the temperature standard. However, efforts to develop or revisit TMDLs have been hampered by EPA's disapproval of the provision in Oregon's temperature standard that enabled DEQ to consider natural conditions and focus on minimizing human-caused warming. The EPA disapproval was in response to a court decision and resulted in the provision becoming ineffective. DEQ has placed a high priority on addressing this issue and resuming DEQ's ability to develop temperature TMDLs. This is the most effective near term work DEQ can do to not only help protect cold water refuges in the lower Willamette and Columbia Rivers, but also to improve thermal conditions in many Oregon waters and thereby contribute to the recovery of listed salmon and steelhead.

DEQ intends to further protect and restore CWR by ensuring that refuges are properly considered when DEQ issues or imposes conditions on CWA Section 402 permits and CWA Section 401 certifications. Once the CWR plans for the Willamette and Columbia Rivers have been completed, they will help inform permitting and certification decisions. For example, the plans will identify where important CWR are located and when they are utilized by migrating salmon or steelhead.

In order to be successful in the development of the Willamette River CWR plan, DEQ expects to enlist and rely upon the expertise and knowledge within NOAA Fisheries, EPA and other relevant organizations. As outlined in the Attachment, DEQ will first compile and review the readily available data and information. In its review, DEQ may look to EPA and NOAA Fisheries and the Oregon Department of Fish and Wildlife to contribute to the identification and interpretation of relevant data where they have resources, information or expertise since DEQ does not have expertise in certain areas, such as fish distribution, migration behavior or population dynamics. In addition, in discussions with EPA and NOAA to date, the agencies have acknowledged that there will be gaps in the available information. When this is the case, the plan will identify and describe the uncertainties and limitations. As outlined in the Attachment, DEQ will identify gaps and uncertainties in the scientific data. DEQ will seek input from knowledgeable entities, including NOAA Fisheries, EPA, ODFW and others, in making research recommendations where additional data is needed to make conclusions about attainment of the CWR narrative.

DEQ expects the CWR plan will identify a variety of recommendations to protect, enhance or restore CWR. Some recommendations will be actions DEQ can take within its authority as the State's water quality regulatory agency. Other recommendations may include actions that are not within DEQ's authority to implement, but could be implemented by other agencies or organizations. Examples of these types of actions include wetland or stream channel restoration projects or the management of federal dams, which do not require 401 certification. In identifying and prioritizing potential actions to restore or enhance cold water refuges, particularly projects that would require significant investments, DEQ will prioritize projects that

are expected to realize a significant contribution toward the recovery of listed fish and persist into the future. This too is an area that will likely require input from EPA and NMFS. In the near term, DEQ may need to rely on the professional judgment of experts until additional information is available. However, DEQ is optimistic that the plans will identify actions that make sense for DEQ and other parties to implement in the near term.

DEQ also agrees to evaluate whether a site specific criterion is needed to protect steelhead smoltification in the main stem John Day River. If DEQ concludes that such a criterion is needed, DEQ will propose the criterion for public comment and for EQC adoption.

DEQ looks forward to engaging in this productive work and to partnering with EPA and NOAA on this effort.

Sincerely,

Dick Pedersen
Director

Cc: Christine Psyk, EPA Region 10
Angela Chung, EPA Region 10
Wendy Wiles, ODEQ
Jennifer Wigal, ODEQ
Richard Whitman, Oregon Governor's Natural Resources Office
Jeff Lockwood, NOAA Fisheries
Kim Kratz, NOAA Fisheries

Attachment

1. Cold-water Refugia
    a. The EPA shall assist the Oregon Department of Environmental Quality (DEQ) in applying the cold water refugia (CWR) narrative criterion in the migration corridor reach of the Willamette River. To apply the criterion, DEQ, with technical assistance and oversight from EPA, will develop a CWR plan for this river segment as described below. The purpose of the CWR plan is to adequately interpret the narrative criterion to allow for implementation of the criterion through DEQ's Clean Water Act authorities.
        i. With technical assistance from EPA, DEQ will gather and synthesize readily available data, information and professional expertise, and use the "Primer for Identifying Cold-Water Refuges to Protect and Restore Thermal Diversity in Riverine Landscapes" (Torgersen et al. 2012) as guidance, to characterize:
            1. the current spatial and temporal distribution of CWR;

2. the current use of CWR by UWR Chinook salmon in the migration corridor reach of the Willamette River; and
3. potential locations for the restoration or enhancement of CWR.

ii. Using the above information and professional expertise, DEQ will:
1. assess whether the spatial and temporal extent of CWR present meets the CWR narrative criterion (i.e., whether CWR are "sufficiently distributed to allow salmon and steelhead migration without significant adverse effects from higher water temperatures elsewhere in the water body"[1]);
2. if DEQ concludes that the CWR criterion is not being met, characterize, to the maximum extent possible, the extent of additional CWR needed to attain the criterion; and
3. identify and prioritize potential actions by DEQ and others to protect, restore or enhance CWR.

iii. DEQ and EPA will identify any scientific uncertainties and data gaps regarding the above elements and identify additional studies needed to address the uncertainties and data gaps.

iv. In coordination with EPA and NMFS, DEQ will complete a scope of work for the CWR plan within 1 year of the signing of this opinion that addresses the elements described above in 1.a.i. and 1.a.ii. The scope of work shall identify data sources and methods DEQ expects to use in completing the plans, and a schedule with milestones for completing the plans.

b. With oversight from EPA, the DEQ will complete the lower Willamette River CWR plan within 3 years of the signing of this opinion. DEQ and EPA will participate with NMFS in a meeting by November 30 of each year after this opinion is signed (beginning in 2016) to assess progress on completing the plan.

[1] Under the CWR narrative criterion, CWR refugia are at "those portions of water body where, or times during the diel temperature cycle when, the water temperature is at least 2°C colder than the daily maximum temperature of the adjacent well mixed flow of the water body."